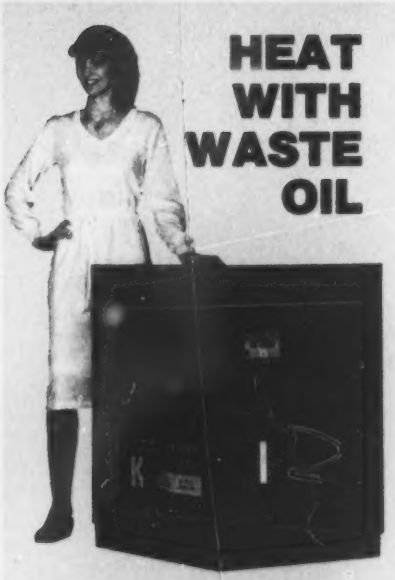
Principal Machines on Farms – 1983

STATE	MOTOR TRUCKS 1954 Adj. Cen. 1,000's[1]	1959 Census 1,000's	1964 Census 1,000's	1969 Census 1,000's	1974 Census 1,000's	1978 Census 1,000's	Estimated July 1, 1983 1,000's	Internal Combustion Engines[2] Estimated July 1, 1983 Number	Chain Saws Estimated July 1, 1983 Number
Maine	18.1	17.3	14.8	12.1	11.3	13.5	13.5	1,760	8,650
New Hampshire	8.3	6.8	5.6	4.0	3.7	4.4	4.4	1,850	2,875
Vermont	11.1	10.0	8.1	6.1	6.2	7.9	8.0	2,300	7,150
Massachusetts	14.3	12.3	10.6	8.4	7.7	9.9	10.1	2,370	5,230
Rhode Island	1.9	1.9	1.8	1.2	1.2	1.5	1.5	240	730
Connecticut	13.2	11.0	9.9	7.4	6.2	7.5	7.5	2,100	4,395
New York	70.5	66.5	62.9	53.6	53.6	61.2	62.1	27,400	57,500
New Jersey	24,4	20.9	17.3	14.3	12.9	16.5	16.8	3,050	6,900
Pennsylvania	71.0	71.4	69.5	57.3	55.5	66.3	67.0	27,000	50,400
Delaware	5.2	5.3	5.2	5.1	5.7	6.5	6.6	1,230	2,900
Maryland	22.0	21.2	21.3	19.5	21.3	25.5	26.0	6,000	14,140
NORTHEAST	**260.0**	**244.6**	**227.0**	**189.0**	**185.3**	**220.7**	**223.5**	**75,100**	**180,870**
Ohio	77.0	81.5	91.4	93.7	97.8	112.9	114.7	25,700	70,000
Indiana	77.4	88.2	99.0	100.1	103.9	120.2	122.0	26,400	75,500
Illinois	99.9	113.7	120.9	129.3	139.9	155.4	158.0	39,200	81,800
Iowa	84.3	99.8	106.7	121.4	137.1	148.0	150.5	41,500	65,000
Missouri	95.8	109.7	123.0	152.5	134.0	162.5	165.3	42,600	108,800
CORN BELT	**434.4**	**492.9**	**541.0**	**577.0**	**612.7**	**699.0**	**710.5**	**175,400**	**401,100**
Michigan	70.5	75.7	80.5	74.6	73.6	83.4	84.7	23,500	52,500
Wisconsin	87.0	90.6	97.0	89.0	92.3	100.9	102.6	45,000	106,600
Minnesota	90.0	103.4	112.5	116.9	130.1	147.4	150.0	61,000	76,200
LAKE STATES	**247.5**	**269.7**	**290.0**	**280.5**	**296.0**	**331.7**	**337.3**	**129,500**	**235,300**
North Dakota	66.8	75.5	81.6	91.2	101.3	109.2	110.8	45,400	4,950
South Dakota	47.7	52.3	56.5	57.8	65.1	66.9	68.1	30,500	3,800
Nebraska	72.0	83.4	93.1	96.4	108.5	120.5	122.3	41,500	16,150
Kansas	112.1	122.3	134.0	141.3	150.9	164.4	167.3	53,800	26,700
GREAT PLAINS	**298.6**	**333.5**	**365.2**	**386.7**	**425.8**	**461.0**	**468.5**	**171,200**	**51,600**
West Virginia	26.0	24.7	24.1	19.5	16.9	21.8	22.0	6,400	24,900
Kentucky	66.7	74.9	90.5	97.1	95.8	125.4	127.4	21,000	51,400
Tennessee	71.6	76.8	86.3	92.8	88.1	104.6	106.2	16,000	67,900
Virginia	57.5	58.0	59.2	55.9	55.5	70.1	71.0	15,500	56,250
North Carolina	84.5	91.1	101.1	99.3	93.5	113.5	115.3	20,200	100,600
APPALACHIAN	**306.3**	**325.5**	**361.2**	**364.6**	**349.8**	**435.4**	**441.9**	**79,100**	**301,050**
South Carolina	39.2	39.1	39.0	35.3	33.7	40.5	40.9	8,000	28,450
Georgia	76.2	72.8	76.6	70.9	69.2	79.8	81.1	16,500	39,200
Florida	36.6	36.4	40.6	37.8	40.1	54.1	54.8	16,000	8,950
Alabama	63.7	63.4	69.5	67.4	64.4	75.1	76.2	13,500	36,900
SOUTHEAST	**215.7**	**211.7**	**225.7**	**211.4**	**207.4**	**249.5**	**253.0**	**54,000**	**113,500**
Mississippi	76.2	71.5	75.1	66.4	60.5	65.5	66.2	13,000	43,600
Louisiana	47.3	47.2	51.3	44.7	41.6	50.4	51.0	15,500	23,900
Arkansas	76.2	73.2	80.6	71.4	69.5	88.0	89.0	17,500	36,600
DELTA STATES	**199.7**	**191.9**	**207.0**	**182.5**	**171.6**	**203.9**	**206.2**	**46,000**	**104,100**
Oklahoma	85.7	92.7	105.1	106.8	101.6	126.2	127.7	26,500	11,820
Texas	187.8	197.8	211.0	227.6	208.1	257.3	257.5	79,000	23,100
SOUTHERN PLAINS	**273.5**	**290.5**	**316.1**	**334.4**	**309.7**	**383.5**	**385.2**	**105,500**	**34,920**
Montana	48.5	52.8	58.2	58.3	61.9	68.9	70.2	23,800	14,120
Idaho	38.7	44.0	48.3	47.1	51.4	59.2	60.2	19,600	15,650
Wyoming	15.0	16.2	17.7	18.4	19.2	20.6	21.1	7,800	3,810
Colorado	48.5	51.7	55.9	55.5	56.9	66.4	67.6	25,000	7,200
New Mexico	21.3	20.3	23.4	18.8	20.0	26.4	27.0	9,400	3,600
Arizona	13.5	16.8	17.2	12.1	14.4	16.8	17.2	6,350	610
Utah	18.0	18.8	20.3	18.3	19.4	22.7	23.2	8,150	2,850
Nevada	3.9	4.5	4.5	5.0	5.4	6.5	6.6	1,900	720
MOUNTAIN STATES	**207.4**	**225.1**	**245.5**	**233.5**	**248.6**	**287.5**	**293.1**	**102,000**	**48,560**
Washington	55.4	60.2	64.2	56.7	57.1	71.4	72.9	20,500	27,150
Oregon	47.7	48.9	53.6	46.2	49.6	60.8	61.9	26,500	30,750
California	128.8	131.0	126.1	115.7	118.8	142.7	145.0	79,200	38,100
PACIFIC	**231.9**	**240.1**	**243.9**	**218.6**	**225.5**	**274.9**	**279.8**	**126,200**	**96,000**
TOTAL	**2,675.0**	**2,825.5**	**3,022.6**	**2,978.2**	**3,032.4**	**3,547.1**	**3,599.0**	**1,064,000**	**1,547,000**

[1]Census numbers have been adjusted to bring them more in line with 1959 and later data based on the new definition of a farm.
[2]Includes engines used for stationary work such as irrigation, auxiliary engines on combines, balers, etc., and a small number of power units not elsewhere classified.



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State	Two-Wheel-Drive Tractors						
	40-49	50-59	60-69	70-79	80-89	90-99	100-119
Alabama	366	184	124	94	101	21	56
Alaska	3	1	3	.....	.....	1	1
Arizona	41	12	51	28	75	25	48
Arkansas	499	206	185	77	67	18	62
California	378	403	651	390	471	75	179
Colorado	46	59	57	22	46	20	53
Connecticut	38	25	25	12	24	7	6
Delaware	8	13	10	8	9	1	13
Florida	319	230	288	332	201	15	100
Georgia	549	240	231	152	164	27	82
Hawaii	9	12	2	5	2	.....	4
Idaho	48	63	79	32	85	38	106
Illinois	161	186	252	191	259	74	308
Indiana	137	140	168	96	211	29	140
Iowa	65	108	221	171	387	131	603
Kansas	64	63	89	59	138	87	302
Kentucky	826	520	403	235	263	60	108
Louisiana	488	171	187	213	67	22	55
Maine	54	58	41	12	28	4	29
Maryland	106	91	57	41	73	12	50
Massachusetts	35	43	19	20	15	3	6
Michigan	161	191	237	139	218	66	164
Minnesota	61	123	222	147	367	150	444
Mississippi	397	166	191	165	91	17	71
Missouri	334	239	346	136	274	79	227
Montana	109	49	87	40	93	28	91
Nebraska	25	38	43	36	150	86	352
Nevada	9	13	18	2	4	5	4
New Hampshire	44	48	26	12	16	4	5
New Jersey	95	51	25	18	20	6	9
New Mexico	48	33	22	45	5	11	18
New York	163	257	267	182	397	83	178
North Carolina	598	322	231	121	284	42	121
North Dakota	9	25	30	19	66	33	199
Ohio	237	233	269	169	227	61	181
Oklahoma	334	172	171	96	134	84	234
Oregon	213	182	123	43	84	28	61
Pennsylvania	246	250	310	122	259	79	134
Rhode Island	6	1	2	2	1	.....	.....
South Carolina	222	108	92	64	91	9	30
South Dakota	10	22	27	25	159	90	268
Tennessee	609	355	253	102	170	38	83
Texas	1,690	672	959	584	482	179	383
Utah	48	87	70	40	46	22	50
Vermont	31	50	54	19	46	6	16
Virginia	437	250	214	115	214	22	78
Washington	368	322	160	72	73	18	36
West Virginia	120	71	75	20	22	4	9
Wisconsin	88	203	369	282	568	158	412
Wyoming	17	16	22	11	38	20	34
U.S. Government	2	.....	2	92	.....	.....	2
Miscellaneous	39	28	27	122	16	.....	.....
TOTAL	**11,011**	**7,405**	**8,087**	**5,232**	**7,301**	**2,098**	**6,185**

1982 Retail Sales of Farm Wheel Tractors by PTO Horsepower (in units)

120-129	130-139	140-149	150-179	180 & over	Total 2-Wheel Drive	Four-Wheel Drive Tractors: Under 200	200-249	250 & over	Total 4-Wheel Drive	All Farm Wheel Tractors	State
5	79	11	47	20	1,108	8	5	1	14	1,122	Alabama
.....	.....	.....	1	.....	10	.....	.....	.....	.....	10	Alaska
5	46	1	29	64	425	36	11	26	73	498	Arizona
13	144	49	194	258	1,772	26	59	40	125	1,897	Arkansas
38	169	14	125	83	2,976	67	84	100	251	3,227	California
22	160	16	70	63	634	37	39	45	121	755	Colorado
.....	7	.....	1	.....	145	2	.....	.....	2	147	Connecticut
5	5	.....	2	5	79	4	1	.....	5	84	Delaware
15	79	23	25	9	1,636	39	12	4	55	1,691	Florida
31	169	25	83	68	1,821	9	9	9	27	1,848	Georgia
.....	2	.....	.....	1	37	.....	.....	2	2	39	Hawaii
55	149	18	118	21	812	67	87	43	197	1,009	Idaho
145	868	90	697	349	3,580	267	187	146	600	4,180	Illinois
88	367	44	265	122	1,807	126	100	63	289	2,096	Indiana
210	1,453	174	579	217	4,319	255	147	73	475	4,794	Iowa
107	658	68	448	270	2,353	222	202	91	515	2,868	Kansas
19	80	6	47	42	2,609	8	10	5	23	2,632	Kentucky
10	121	22	123	128	1,607	17	20	29	66	1,673	Louisiana
1	14	.....	1	.....	242	3	.....	.....	3	245	Maine
12	32	5	8	5	492	6	5	3	14	506	Maryland
.....	1	1	1	.....	144	1	.....	.....	1	145	Massachusetts
36	228	27	108	38	1,613	125	52	20	197	1,810	Michigan
99	731	84	289	76	2,793	235	144	100	479	3,272	Minnesota
4	110	18	193	140	1,563	34	18	19	71	1,634	Mississippi
88	400	52	216	140	2,531	100	60	49	209	2,740	Missouri
46	110	9	61	31	754	106	109	109	324	1,078	Montana
95	798	78	421	215	2,337	115	72	39	226	2,563	Nebraska
1	4	1	3	2	66	4	1	.....	5	71	Nevada
.....	2	.....	1	.....	158	.....	.....	.....	.....	158	New Hampshire
4	11	.....	8	2	249	1	.....	.....	1	250	New Jersey
8	47	2	33	14	286	1	10	3	14	300	New Mexico
30	129	11	32	12	1,741	45	23	9	77	1,818	New York
20	121	29	67	66	2,022	19	10	5	34	2,056	North Carolina
91	453	31	271	95	1,322	302	238	200	740	2,062	North Dakota
71	280	41	145	59	1,973	88	53	23	164	2,137	Ohio
53	361	21	159	72	1,891	127	104	48	279	2,170	Oklahoma
11	72	5	39	7	868	42	23	19	84	952	Oregon
35	112	4	18	6	1,575	16	9	1	26	1,601	Pennsylvania
.....	.....	.....	.....	.....	12	.....	.....	.....	.....	12	Rhode Island
7	74	13	31	38	779	6	7	4	17	796	South Carolina
87	423	21	181	42	1,355	106	80	52	238	1,593	South Dakota
18	132	11	95	57	1,923	9	11	9	29	1,952	Tennessee
109	807	108	513	420	6,886	115	98	86	299	7,185	Texas
14	56	5	22	6	466	10	5	8	23	489	Utah
5	9	4	3	2	245	8	.....	.....	8	253	Vermont
11	68	6	21	19	1,455	12	2	1	15	1,470	Virginia
11	58	7	30	13	1,168	49	61	24	134	1,302	Washington
.....	3	1	.....	.....	325	1	.....	.....	1	326	West Virginia
128	422	39	146	45	2,880	117	35	15	167	3,027	Wisconsin
7	31	4	19	5	224	28	11	5	44	268	Wyoming
.....	.....	.....	.....	.....	98	.....	.....	.....	.....	98	U.S. Government
.....	1	.....	1	.....	234	.....	.....	.....	.....	234	Miscellaneous
1,870	**10,656**	**1,199**	**5,990**	**3,347**	**70,301**	**3,021**	**2,214**	**1,528**	**6,763**	**77,144**	**TOTAL**

DATA: Farm & Industrial Equipment Institute. Figures do not include garden tractors, motor tillers, or contractor's off-highway types. Report includes units marketed by these firms: Allied Farm Equip. (Leyland, Satoh); Allis-Chalmers; Belarus; J I Case; Deere; Deutz; Ford; International Harvester; Long; Massey-Ferguson; Steiger; Versatile; R.M. Wade (Satoh); and White. Sales reported as miscellaneous are retail sales which cannot be classified by state or as U.S. Government. They include sales and dispositions that do not go through usual marketing channels such as gifts to non-profit organizations, intra-plant or company transfers, etc.

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RETAIL SALES OF SELECTED FARM EQUIPMENT – Jan.-Dec. 1982(1)

(In Units)

	Combines S-P	Corn Heads	Hay Balers(2)	— Windrowers — Self-Propelled Power Units	Total Heads	Grinder-Mixers	Shear-Bar Forage Harvesters(3)	Mower Conditioners, All Types	Manure Spreaders Conveyor-Type
Alabama	113	29	105	1	1	74	35	112	4
Alaska	.....	.....	12	.....	.....	1	1	6	.....
Arizona	31	5	26	34	47	8	9	9	2
Arkansas	308	7	102	.....	.....	46	7	239	56
California	183	49	141	172	191	7	54	35	59
Colorado	228	114	332	159	170	34	61	106	41
Connecticut	1	.....	39	.....	.....	1	34	73	65
Delaware	15	10	11	.....	.....	7	2	7	24
Florida	40	17	64	2	2	13	26	65	21
Georgia	383	122	146	1	2	129	53	157	25
Hawaii	.....	.....	.....	.....	.....	.....	.....	1	.....
Idaho	291	9	367	209	215	26	26	109	95
Illinois	1,714	1,790	199	7	8	312	140	464	455
Indiana	721	775	186	4	5	205	88	329	320
Iowa	1,895	1,904	231	82	102	749	278	689	1,260
Kansas	1,377	141	218	140	158	160	126	485	156
Kentucky	178	117	186	4	6	177	105	619	213
Louisiana	128	6	66	.....	.....	12	13	50	17
Maine	4	5	46	2	2	3	30	70	74
Maryland	75	85	73	9	10	34	53	97	144
Massachusetts	.....	1	35	.....	.....	3	33	56	45
Michigan	263	273	230	29	28	151	208	384	477
Minnesota	1,013	734	447	349	383	392	458	745	1,186
Mississippi	236	8	73	1	1	39	36	60	20
Missouri	732	255	246	16	20	304	77	901	232
Montana	397	3	205	303	369	49	34	148	39
Nebraska	1,143	809	143	179	213	346	239	412	281
Nevada	2	.....	29	46	50	1	5	9	9
New Hampshire	.....	1	25	.....	.....	.....	17	62	41
New Jersey	6	10	32	2	2	9	10	36	43
New Mexico	33	3	121	39	39	5	16	26	2
New York	90	97	519	37	38	84	440	727	1,224
North Carolina	295	254	189	.....	.....	93	71	261	105
North Dakota	910	73	32	472	549	91	81	186	81
Ohio	382	405	301	9	9	220	154	547	548
Oklahoma	559	13	216	78	92	72	22	415	36
Oregon	130	16	209	127	145	10	21	115	74
Pennsylvania	108	131	548	35	37	242	351	775	965
Rhode Island	.....	.....	2	.....	.....	.....	.....	5	2
South Carolina	133	55	51	.....	.....	54	21	107	24
South Dakota	450	222	69	395	432	196	230	171	175
Tennessee	165	45	216	.....	.....	167	97	556	100
Texas	759	145	478	61	69	161	39	943	118
Utah	27	5	258	76	84	16	45	148	68
Vermont	3	3	69	4	4	.....	81	129	175
Virginia	112	95	198	4	5	82	119	517	180
Washington	207	22	218	76	89	10	55	112	69
West Virginia	5	3	95	1	1	21	24	129	44
Wisconsin	313	413	966	204	215	344	997	1,523	1,782
Wyoming	46	15	135	104	128	14	23	52	2
U.S. Government	.....	.....	.....	.....	.....	.....	.....	.....	.....
Miscellaneous (4)	1	.....	.....	1	1	.....	.....	2	.....
TOTAL	**15,205**	**9,294**	**8,905**	**3,474**	**3,922**	**5,176**	**5,145**	**13,981**	**11,201**

Data released Feb. 25, 1983, Farm & Industrial Equipment Institute.

(1) Includes revisions for prior months.
(2) For making bales of under 200 lbs
(3) Pull-type, mounted, self-propelled
(4) Sales reported as miscellaneous are retail sales which cannot be classified by state or as U.S. Government. They include sales and dispositions that do not go through usual marketing channels such as gifts to non-profit organizations, intra-plant or company transfers, etc.

NEW AGRICULTURAL WHEEL TRACTOR IMPORTS—JAN. 1981—JUNE 1983

Number of Units

(Excludes garden tractors except as indicated in headings, footnotes.)

Nation of Origin	Under 40 HP*	40-79 HP*	80-99 HP*	100 HP and Over*	HP Not Specifically Provided*	Not Elsewhere Specified, Excl. Industrial, Incl. Garden Types**	TOTALS
Canada							
6 mos., 1983	36	22	25	240	531	61	915
year 1982	32	63	84	347	1,383	233	2,142
year 1981	73	47	121	461	1,915	153	2,770
United Kingdom							
6 mos., 1983	3,148	6,597	849	129	5	82	10,805
year 1982	546	3,195	754	156	74	284	5,009
year 1981	614	6,031	1,109	382	15	93	8,544
Japan							
6 mos., 1983	21,211	1,436	21	22	306	4,671	27,667
year 1982	37,534	3,063	13	231	774	8,101	49,716
year 1981	40,978	2,821	3	85	714	5,469	49,530
West Germany							
6 mos., 1983	32	5,187	1,255	191	5	1	6,669
year 1982	2	4,016	2,718	668	43	32	7,479
year 1981	2	6,653	2,421	750	7	8	9,841
Italy							
6 mos., 1983	98	689	175	119	1	1,310	2,392
year 1982	417	1,399	369	863	2	67	3,117
year 1981	767	1,839	430	341	57	116	3,559
Romania							
6 mos., 1983	123	374	.....	.....	.....	17	514
year 1982	1,101	3,317	1	1	12	14	4,446
year 1981	558	3,050	.....	1	.....	2	3,611
France							
6 mos., 1983	20	496	94	.....	.....	1	611
year 1982	.....	19	245	11	34	.....	309
year 1981	1	48	.....	17	.....	2	68
TOTALS							
6 mos., 1983	24,724	15,777	2,417	707	857	6,193	50,675
year 1982	39,764	15,858	4,190	2,378	2,366	8,739	73,295
year 1981	44,208	21,012	4,084	2,339	2,714	5,858	80,215

Source: U.S. Dept. of Commerce, Bureau of Industrial Economics, Office of Producer Goods.
*Excluding garden tractors. **Including garden tractors.
Other imports: 1981—Argentina (1,071), Belgium (639), Brazil (60), Czechoslovakia (40), Korea (61), Netherlands (28), Poland (24), U.S.S.R. (332).
1982—Belgium (99), Brazil (22), P. R. China (106), Czechoslovakia (131), Mexico (508) U.S.S.R. (4).
1983 (6 mos.)—Czechoslovakia (53), Ireland (23), Mexico (819), U.S.S.R. (131).

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DOLLAR VALUE OF FARM EQUIPMENT
IMPORTS BY COUNTRY OF ORIGIN, Jan., 1978-June, 1983
(In thousands)

Country	Jan.-Dec. 1978	Jan.-Dec. 1979	Jan.-Dec. 1980	Jan.-Dec. 1981	Jan.-Dec. 1982	Jan.-June 1983
Canada	$506,728	$831,155	$820,500	$706,276	$487,286	$212,121
Mexico	6,277	10,082	9,080	9,699	11,349	9,480
Brazil	2,194	892	1,002	1,064	4,780	2,638
Sweden	1,708	4,818	4,456	2,784	3,023	1,115
Denmark	4,513	7,158	5,703	4,690	4,910	3,602
Netherlands	12,690	16,942	15,407	13,626	13,924	12,624
United Kingdom	125,241	209,967	215,932	153,589	93,806	81,056
Belgium	66,347	93,709	67,188	50,393	25,730	13,176
France	36,351	62,294	51,488	41,695	30,804	24,134
West Germany	141,392	231,521	236,578	197,110	169,087	127,252
Hungary	4,673	10,727	10,155	9,329	7,564	546
U.S.S.R.	1,113	2,715	1,716	1,296	128	435
Romania	8,372	11,648	11,611	12,598	15,461	2,438
Italy	75,066	78,523	94,794	100,853	95,092	43,959
Spain	3,768	9,239	5,559	3,561	6,541	1,189
Israel	1,545	2,616	3,218	2,777	2,677	2,152
New Zealand	1,918	5,312	6,665	8,630	9,792	6,907
Australia	3,218	5,937	4,366	7,306	4,662	1,783
Japan	167,858	267,599	189,753	202,000	181,056	94,913
China (Taiwan)	1,446	1,916	1,573	2,562	2,913	1,953
China (P.R.C.)	NA	30	100	86	1,381	1,147
South Africa	3,972	6,332	5,234	2,409	228	63
TOTAL	**$1,182,758**	**$1,880,470**	**$1,773,033**	**$1,549,799**	**$1,179,734**	**$649,594**

Source: U.S. Dept. of Commerce, Bureau of Industrial Economics, Office of Producer Goods.
NA: Data not available.

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IMPORTS OF FARM EQUIPMENT BY PRODUCT

Product	Jan.-Dec., 1981 Quantity	Jan.-Dec., 1981 Value in Thousands of Dollars	Jan.-Dec., 1982 Quantity	Jan.-Dec., 1982 Value in Thousands of Dollars	Jan.-June, 1983 Quantity	Jan.-June, 1983 Value in Thousands of Dollars
Knives & Cutting Blades	7,184,967	$ 10,022	7,524,683	$10,620	4,227,106	$ 4,683
Plows & Listers	5,385	9,361	5,204	4,496	1,594	1,833
Cultivators & Weeders	10,190	25,274	14,342	17,862	11,116	12,316
Parts of Plows, Cultivators, Weeders & Listers	.....	28,114	.....	21,074	.....	12,737
Harrows, Rollers, Stalk Cutters, Soil Pulverizers	21,615	10,794	21,297	7,584	17,347	2,968
Parts of Harrows, Rollers, Stalk Cutters, etc.	.....	11,965	.....	12,789	.....	7,485
Planting, Seeding & Fertilizing Machinery	31,764	54,212	30,217	38,360	15,852	16,800
Parts of Planting, Seeding & Fertilizing Machinery	.....	12,642	.....	8,987	.....	5,523
Haying Machinery other than Mowers	5,847	13,061	7,483	11,207	5,322	7,951
Mowers except Lawn Mowers	14,895	24,523	14,370	25,089	6,283	11,896
Harvesting Machines, NES	14,647	196,569	9,141	110,813	4,876	41,767
Parts of Harvesting Machines	.....	65,224	.....	58,099	.....	21,983
Farm Wagons & Carts	9,963	13,010	4,767	7,684	2,218	3,447
Agricultural Machines & Implements, NES	.....	94,045	.....	73,701	.....	47,866
Parts of Agricultural Machines, NES	.....	67,308	.....	53,662	.....	30,527
Tractors, Agricultural, Wheel-Type, New, excluding Industrial*	80,215	590,549	73,295	505,373	50,675	312,723
Tractors, Agri., Used	3,176	20,551	3,349	23,311	1,629	12,779
Parts for Agri. Tractors	.....	296,988	.....	183,024	.....	89,869

Source: U.S. Dept. of Commerce, Bureau of Industrial Economics, Office of Producer Goods.
NES – Not elsewhere specified.
*Use of the term "Industrial" here is understood to refer to such machines as forklifts but not to industrial tractors as commonly defined in the farm and industrial equipment industry.

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FARM EQUIPMENT EXPORTS BY TYPE OF PRODUCT

Product	Jan.-Dec., 1981 Quantity	Jan.-Dec., 1981 Dollar Value in Thousands	Jan.-Dec., 1982 Quantity	Jan.-Dec., 1982 Dollar Value in Thousands	Jan.-June, 1983 Quantity	Jan.-June, 1983 Dollar Value in Thousands
Combines, pull-type	2,061	43,402	1,895	45,765	699	18,499
Combines, self-propelled	6,936	252,609	5,861	225,909	1,442	60,141
Cultivators, tractor-drawn or mounted	8,780	15,490	4,522	9,213	1,947	3,038
Cultivators, NEC, and Weeders	3,277	5,467	2,745	4,638	1,537	1,945
Farm Elevators and Blowers	3,323	12,295	1,812	5,851	906	2,468
Farm Wagons and Carts	3,208	6,001	1,804	3,100	888	1,112
Parts for Farm Wagons and Carts	.....	2,014	.....	1,155	.....	1,147
Fertilizing Machines	8,096	20,814	4,528	14,319	2,787	7,873
Forage Harvesters	3,806	30,155	2,234	30,420	1,516	21,488
Harrows, Disk	9,851	26,568	4,357	18,713	3,618	9,531
Harrows, NEC, & Soil Pulverizers	9,043	10,557	5,908	7,922	4,305	4,300
Parts for Harrows, Stalk Cutters & Soil Pulverizers	.....	9,875	.....	8,307	.....	2,249
Harvesting Machines, NEC	10,474	110,879	7,390	63,524	3,059	17,907
Harvesting Machine Parts	.....	151,325	.....	93,927	.....	41,600
Hay Balers	14,654	85,244	7,113	45,765	3,140	21,544
Haying Machines, NEC (incl. rakes & tedders)	9,087	44,660	5,063	29,162	2,417	8,878
Parts for Haying Machines	.....	24,837	.....	26,805	.....	13,075
Mowers, Cutterbar, tractor-drawn	3,232	7,838	2,065	5,903	499	1,446
Mowers, Rotary, tractor-drawn (excl. lawn mowers)	8,826	6,861	9,351	7,192	3,409	2,865
Mowers, NEC, tractor-drawn (excl. lawn mowers)	3,598	11,128	1,641	4,899	964	2,685
Planting Machines	9,028	22,606	4,944	11,507	1,880	3,277
Plows, Disk	3,960	9,384	2,132	5,202	295	737
Plows, Moldboard	6,140	17,577	2,709	8,570	984	3,196
Plows & Listers, NEC	5,259	15,160	6,190	17,007	2,883	5,744
Parts for Plows, Listers, Cultivators & Weeders	.....	35,876	.....	24,455	.....	9,896
Seeding Machines	16,604	30,111	12,163	23,236	6,343	12,168
Parts for Planting, Seeding & Fertilizing Machines	.....	19,939	.....	14,943	.....	8,225
Farm Tractors:						
Under 40 PTO HP	2,089	13,822	1,133	5,925	370	1,883
40-59 PTO HP	1,784	21,320	646	7,644	198	1,908
60-79 PTO HP	1,376	20,650	1,066	17,599	228	3,316
80-99 PTO HP	1,984	37,231	858	19,883	314	8,274
100-119 PTO HP	4,355	105,804	2,250	63,492	612	19,590
120-139 PTO HP	7,057	188,020	4,191	124,063	1,060	36,461
140-159 PTO HP	2,449	75,793	1,877	61,223	645	23,348
160-179 PTO HP	1,914	74,216	1,400	64,045	533	24,461
180 HP & Over	3,741	179,283	3,253	182,641	897	51,883
Other Farm Tractors	2,817	54,716	1,216	18,103	1,154	6,114
Parts for Farm Tractors	.....	778,425	.....	658,608	.....	274,986

Source: U.S. Dept. of Commerce, Bureau of Industrial Economics, Office of Producer Goods.
NEC—Not elsewhere counted or classified.

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VALUE OF U.S. FARM EQUIPMENT EXPORTS BY COUNTRIES OF DESTINATION

(Value in thousands of dollars)

Country	1981	1982	Jan.-June 1983
Western Hemisphere			
Canada	$1,377,947	$997,453	$426,397
Mexico	259,970	124,601	15,823
Guatemala	6,498	3,792	1,170
Honduras	5,822	2,825	1,449
Nicaragua	10,014	5,704	2,354
Costa Rica	3,375	1,772	1,275
Panama	7,906	13,032	1,928
Trinidad	5,362	6,110	2,658
Dominican Republic	7,540	3,836	2,531
Colombia	18,755	18,238	8,100
Jamaica	3,703	5,600	1,516
Venezuela	76,691	72,641	9,220
Brazil	30,805	19,522	4,592
Uruguay	3,200	1,130	453
Paraguay	3,344	1,725	221
Argentina	27,807	10,496	3,817
Chile	11,893	3,163	1,342
Ecuador	16,163	14,325	3,610
Peru	11,686	8,811	3,032
Europe			
Denmark	5,729	3,673	1,042
Sweden	10,028	8,046	4,263
United Kingdom	77,137	72,031	35,269
Netherlands	10,375	13,919	7,227
Belgium	106,337	66,237	27,047
France	96,216	118,393	57,643
West Germany	60,724	88,643	43,498
Hungary	11,806	7,409	7,319
Switzerland	4,762	4,208	1,649
Spain	11,041	10,549	3,659
Italy	13,065	8,895	4,171
Greece	4,320	2,161	593
U.S.S.R.	36,506	19,825	11,926
Middle East			
Iraq	8,055	9,587	479
Israel	15,248	15,629	8,056
Kuwait	3,731	2,506	561
Saudi Arabia	63,813	147,530	133,111
Jordan	2,160	4,307	644
Arab Emirates	6,722	5,434	1,825
Iran	573	1,913	2,606
Asia and Pacific			
India	2,791	2,075	2,442
Thailand	3,112	1,988	1,206
Singapore	19,919	15,489	6,311
Malaysia	3,331	2,411	1,137
Indonesia	2,455	3,181	2,078
Philippines	5,241	5,328	1,716
Korea	5,260	4,389	2,714
Japan	21,878	19,181	11,126
Australia	199,503	218,132	27,404
New Zealand	8,850	9,152	1,635
Africa			
Algeria	6,200	5,050	4,757
Libya	16,025	2,731	822
Sudan	5,974	11,545	5,671
Nigeria	10,633	6,666	635
Egypt	28,996	14,634	5,577
Rep. South Africa	94,929	63,923	28,583
Senegal	1,059	3,481	283
Zimbabwe	995	3,532	2,218
Total U.S. Exports, Farm & Industrial Equipment	**$2,942,117**	**$2,378,282**	**$970,660**

Source: U.S. Dept. of Commerce, Bureau of Industrial Economics, Office of Producer Goods.

Wheel Tractors, Attachments and Parts, Value of Shipments, 1978-1982

(In thousands of dollars)

	1982	1981	1980	1979	1978
Wheel Tractors, Farm Type	2,192,635	3,066,418	2,761,480	2,901,693	2,264,398
Wheel Tractors, Non-Farm	68,692	97,257	115,154	165,506	132,694
Attachments for Wheel Tractors, Farm and Non-Farm	40,911	44,965	48,066	69,353	36,527
Parts for Wheel Tractors, Farm and Non-Farm	292,331	421,320	469,505	255,726	263,312
Wheel Tractor Chassis, Shipped as Part of Shovel Loader/Backhoe	230,031	315,639	306,736	351,306	278,269
TOTALS	**2,824,600**	**3,945,599**	**3,700,941**	**3,743,584**	**2,975,200**

Source: U.S. Dept. of Commerce, Bureau of the Census, Current Industrial Reports, Tractors (M35S).

Farm Machinery and Garden Equipment, Attachments and Parts, Value of Shipments, 1978-1982

(In thousands of dollars)

	1982	1981	1980	1979	1978
Planting, Seeding and Fertilizing Machinery	661,328	802,378	680,743	652,944	522,416
Harrows, Rollers, Pulverizers, Stalk Cutters	349,282	552,491	555,377	601,262	462,419
Plows	151,661	233,199	245,875	273,496	203,617
Harvesting Machinery	2,137,432	2,579,889	2,207,075	2,133,516	1,815,631
Haying Machinery	544,898	711,748	778,199	674,621	533,738
Farm Dairy Machines and Equipment	109,151	159,961	143,372	134,301	108,920
Sprayers and Dusters	250,050	248,491	254,083	245,368	197,931
Farm Elevators and Blowers	114,092	117,986	140,809	173,492	157,168
Cultivators and Weeders	200,504	235,994	275,793	275,519	206,125
Machines for Preparing Crops for Market or Use	276,309	319,425	340,083	384,916	356,008
Farm Poultry Equipment	102,389	144,939	174,931	223,333	159,452
Hog Equipment	37,867	41,530	63,951	120,728	95,226
Other Barn and Barnyard Equipment	198,539	257,298	274,220	306,942	251,587
Garden Tractors, Motor Tillers	NA	NA	NA	NA	686,375
Farm Wagons, Other Farm Transportation Equipment[1]	154,551	212,087	207,105	276,557	247,779
Irrigation Systems	253,020	349,237	308,974	234,412	161,348
Commercial Turf, Mowing Equipment	193,391	191,147	200,666	119,189	NA
Other Turf, Grounds Care Equipment	38,396	40,743	35,430	33,008	NA
Consumer Nonriding Lawn, Garden, Snow Equipment	1,253,782	1,167,768	1,374,557	1,444,126	NA
Consumer Riding Lawn, Garden, Snow Equipment	959,728	899,576	953,403	1,047,080	NA
TOTALS	**7,987,370**	**9,265,887**	**9,215,006**	**9,354,810**	**5,479,495**

[1]Data for 1978 include operator cabs in attachments and parts for these items.
NA – Not available or not applicable.
Source: U.S. Dept. of Commerce, Bureau of the Census, Current Industrial Reports, Farm Machinery and Lawn and Garden Equipment (MA-35A).

Shipments of Farm Machines and Equipment

(In units, 1978-1982)

Type of Farm Equipment	1982	1981	1980	1979	1978
Balers, hay (all types):					
Bales under 200 lbs.	10,130	15,936	17,065	20,867	22,659
Bales over 200 lbs.	14,302	23,213	32,446	31,443	21,323
Blowers (includes forage type, combination grain-forage type)	3,673	6,771	9,752	11,526	12,018
Cabs (metal), farm tractor	9,044	10,597	10,565	49,259	54,651
Cabs, other equipment	4,739	6,269	4,051	4,648	3,995
Combines, grain, pull-type and self-propelled	22,726	32,062	28,502	32,400	32,020
Corn heads	7,228	17,107	14,601	20,052	18,629
Cotton strippers (all types)	NA	NA	2,566	1,279	1,900
Cultivators, corn and cotton types	14,621	25,957*	28,726*	37,939	38,355
Cultivators, field:					
Pull-type	6,248	9,385	14,897	19,520	13,440
Mounted	1,628	3,044	5,257	4,731	5,262
Cultivators, rotary:					
Ground driven, sections and machines	9,987	15,025	20,355	16,480	16,794
Ground driven, integrally mounted				11,466	12,214
Power driven		456	486	700	628
Cultivators and weeders, other	25,935	30,936	47,727	39,153	42,148
Cutters and shredders or rotary mowers (pto):					
Flail-type	7,953	9,541	12,149	12,747	9,521
Horizontal blade-type	58,438	66,944	75,677	95,045	72,469

See footnotes at end of table.

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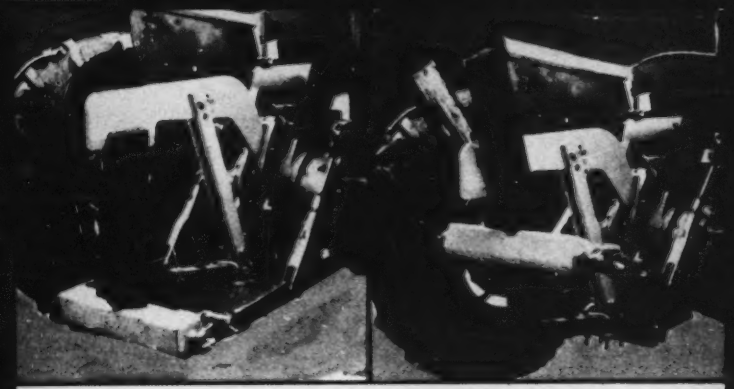

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Type of Farm Equipment	1982	1981	1980	1979	1978
Diggers, peanut (shakers and windrowers but not combines)	974	685	1,233	1,847	2,002
Combines, peanut		270	880	1,632	1,974
Distributors (fertilizer):					
Dry	4,681	6,129	6,254	11,754	11,522
Liquid	5,952	8,841	10,070	7,196	6,503
Anhydrous Ammonia	3,060	6,094	6,693	7,178	6,455
Dryers, grain, hay and seed batch type, pto or electric-motor operated	4,335	5,413	7,899	9,809	9,355
Continuous flow-type	835	1,348	1,419	1,755	2,306
Heated air units	22,178	12,553	14,983	21,573	28,290
Dusters, power, all types	493	859	794	727	574
Elevators, portable:					
Single chain	3,200	5,507	7,316	8,224	7,211
Double chain	3,100	3,074	6,680	9,446	8,787
Auger-type, under 6-in. dia.	14,365	17,607	25,725	35,585	31,662
Auger-type, 6-in. dia.	7,639	8,373	27,885	56,809	79,401
Auger-type, over 6-in. dia.	19,354	17,537	23,809	59,658	81,664
Elevators, stationary and other	97,837	89,034	33,268	38,734	32,355
Fans, crop drying and aeration	37,263	27,452	26,162	51,441	59,912
Grain drills, fixed-frame, all types	16,878	21,861	19,448	NA	NA
Grain heads for combines	28,714	48,656	46,162	50,177	50,609
Grinder-mixers, stationary and portable	4,657	8,031	14,152	18,888	16,907

See footnotes at end of table.

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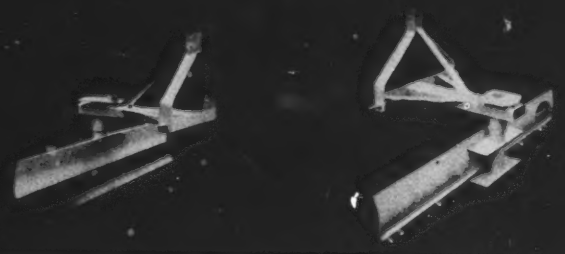

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Shipments *(continued)*

Type of Farm Equipment	1982	1981	1980	1979	1978
Harrows, disk	29,467	51,639	67,676	85,375	76,857
Harrow sections (spike-, spring-, tine-tooth and power)	59,535	75,246	96,893	120,695	98,108
Harvesters, beet	161	289	246	111	312
Harvesters, forage, field, shear-bar type, self-propelled and pull	5,316	7,309	12,761	14,006	12,969
Attachments for shear-bar type, pickup and cutter-bar hay units	6,189	8,999	9,785	10,398	10,946
Row crop units, all sizes	5,707	6,857	11,800	13,578	13,532
Flail-type, including discharge spouts	1,050	2,259	3,062	3,080	3,972
Harvesters, potato	345	387	258	362	758
Harvesting machinery, other	4,237	7,816	8,108	11,972	13,566
Levelers or scrapers	4,089	6,122	6,931	165,346	160,526
Loaders, field, for baled hay	2,424	2,868	6,457	6,890	6,160
Loaders, tractor mounted, farm	17,243	23,322	36,547	69,294	42,582
Mills, feed, farm size (includes grinders and crushers of the hammer, burr or roller types	4,197	6,481	8,035	11,077	10,614
Mixers, feed, farm size	1,915	3,094	3,162	4,108	3,578
Mowers, cutter bar-type	6,550	7,687	8,586	8,435	12,134
Mower-conditioners, self-propelled and pull-type	20,051	31,059	38,071	35,039	29,921
Planters, corn and cotton, all types	108,394	163,096	156,482	NA	NA
Planters, row crop units (quantity in number of rows)				36,887	37,764

See footnotes at end of table.

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Type of Farm Equipment	1982	1981	1980	1979	1978
Plows, chisel or sweep type:					
Pull-type	4,921	6,738	14,313	15,455	12,090
Mounted	4,061	4,618	6,094	9,703	10,501
Plows, disk-chisel combination	4,105	6,059	3,195	NA	NA
Plows, disk, 1-way, 2-way (harrow, cylinder, great plains, all sizes)	3,010	4,832	8,302	NA	NA
Plows, subsoiler				8,321	6,964
Plows, terracing and ditching	1,039	1,756	2,383	2,308	2,039
Plows, moldboard					
Pull-type, one-way	994	2,503	3,263	3,873	2,666
Mounted, 1-way	3,642	6,111	8,680	13,224	11,852
Semi-mounted, 1-way	2,196	11,485	11,817	18,883	14,099
Pull-type and mounted, 2-way	2,262	3,297	2,999	3,577	3,473
Plows, other (except snow)	4,765	4,654	6,111	2,610	2,891
Rakes, hay, side-delivery,	10,089	13,615	19,707	19,121	20,602
Sprayers, field and row crop type:					
Power, self-propelled	2,330	2,010	3,516	4,257	3,590
Power, tractor-mounted	18,802	24,250	25,549	31,089	22,368
Power, non-tractor-mounted	5,244	8,898	14,089	16,810	14,142
Sprayers, power, not field or row crop type	6,552	6,203	7,444	6,896	5,836
Sprayers, power, air-carried	5,801	6,996	6,286	9,856	8,019
Spreaders, manure:					
Conveyor type	9,067	11,802	17,029	16,586	16,528
Tank type	2,533	4,540	7,188	8,772	7,584
Stackers, hay	NA	NA	1,175	1,806	1,442

See footnotes at end of table.

(More...)

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RED LION
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Denver, Colorado (303) 287-3368
Orlando, Florida (305) 291-1557
Atlanta, Georgia (404) 944-2400

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Shipments *(continued)*

Type of Farm Equipment	1982	1981	1980	1979	1978
Tillage equipment, combination roller/harrows, disk or coulter, field cultivators, disk or coulter/spring tooth	3,310	6,356	8,193	8,527	8,384
Tool bars, basic units, pull, mounted	3,389	4,416	4,277	7,246	6,715
Tractors, tracklaying type	8,476	15,789	18,208	19,812	22,057
Tractors, wheel					
Farm type	65,165	118,209	118,240	159,973	136,240
Non-farm type	4,728	7,480	10,029	18,452	16,741
Transplanters and broadcast seeders	21,308	23,854	20,872	43,672	27,296
Wagons, farm type, chassis only, and trailer gear	26,205	42,249	46,642	53,247	53,257
Wagon boxes and racks for mounting on wagons and trailer gear					
Manual unloading or dump	9,675	14,621	16,998	23,342	23,143
Gravity unloading, grain type	9,282	13,506	24,028	39,377	31,072
Power unloading	9,500	14,864	18,038	19,950	18,599
Wagon boxes with integral running gear	3,385	5,559	5,737	8,136	7,206
Windrowers for grain, pull-type	NA	NA	828	819	617
Windrowers for hay, self-propelled	NA	NA	7,163	5,841	4,098

In some cases, I&T has combined data because of space limitations. If you need more information from MA-35A, write us.
DATA: Current Industrial Reports, Series MA-35A, Bureau of the Census.
NA—Not available or not applicable.

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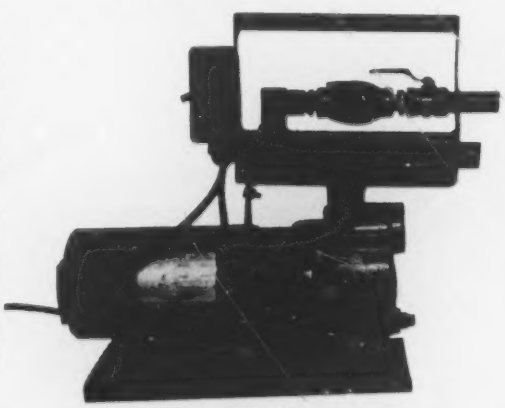

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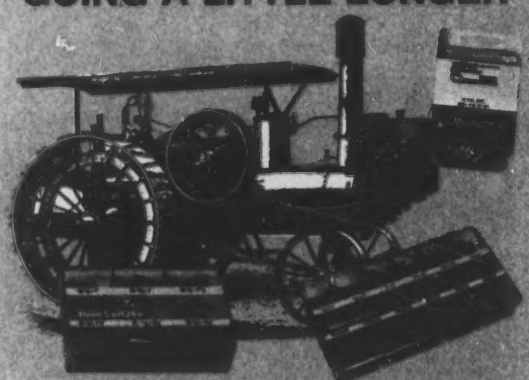

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Auctions *(Continued from page 4)*

4430 diesel, cab, duals, 1976 (Excellent) 13,800
4430 diesel, 1973 (Fair) 6800
4240 diesel, cab, duals, 1979 (Excellent) 17,750
4230 diesel, cab, 1976 (Excellent) 14,500
4020 diesel, 1967 (Good) 5200
4020 diesel, 1965 (Fair) 4200
3020 diesel, 1970 (Good) 6500
3020 diesel, 1968 (Rough) 3250
3020 diesel, 1964 (Fair) 3600*
2840 diesel, cab, 1979 (Good) 7800
2840 diesel, cab, 1978 (Good) 7400
2840 diesel, 1978 (Good) 7200
2040 diesel, 1979 (Good) 5150*
1530 diesel, 1975 (Good) 3750
820 diesel, 1971 (Good) 3700
420, 1957 (Good) 1100*

LONG TRACTOR

384 diesel, (Fair) 1550

OLIVER TRACTORS

2-105 diesel, 1976 (Fair) 5550
2-105 diesel, 1975 (Fair) 5300*
550 diesel, 1958 (Fair) 925
550 diesel, 1958 (Fair) 1450

YODER & FREY, INC.
Archbold, Ohio
September 13, 1983

INTERNATIONAL HARVESTER TRACTORS

Cub, 1948 (Rough) 1025*
H, 1944 (Fair) 5600
H, 1940 (Fair) 620*
H, ... 250
H, 1946 (Fair) 450*
H, 1940 (Fair) 625
M, diesel, ... 500
Sup. M, 1952 (Good) 950
W4, ... 275
130, 1958 (Fair) 1850
300, 1957 (Fair) 750*
400, 1957 (Fair) 760*
460, 1961 (Rough) 1000
504, 1966 (Fair) 1500*
504, 1965 (Fair) 2350
560 diesel, 1960 (Good) 1900
574 diesel, 1973 (Fair) 2925
674 diesel, ldr., 1970 (Good) 4600
706, 1963 (Rough) 2000*
706 diesel, ... 2450
706, 1964 (Rough) 3200*
756 diesel, 1968 (Fair) 3900*
806, 1963 (Rough) 1800*
806, 1964 (Good) 4100
856 diesel, 1968 (Fair) 4800*
866 diesel, 1975 (Good) 6500
866 diesel, 1976 (Excellent) 8300*
986, 1979 (Excellent) 12,750*
1066, 1975 (Fair) 6000*
1066, 1975 (Good) 6150*
1066, 1974 (Fair) 6000*
1086, 1979 (Good) 13,500*
1206, 1965 (Fair) 4900*
1206, 1963 (Fair) 6800*
1466, 1975 (Fair) 6100*
400, ... 500
A, cult., 1941 (Rough) 550
A, cult., 1946 (Fair) 610*
A, cult., 1943 (Fair) 1300
A, cult., 1945 (Rough) 650
B275, ldr., (Fair) 1325
M, ... 325
M, 1952 (Rough) 650
M, 1950 (Fair) 800
M, 1950 (Rough) 675*
M, 1950 (Rough) 525
Sup. C, 1952 (Fair) 925*
C, 1949 (Rough) 375*
C, 1946 (Rough) 800*
B, 1947 (Fair) 410
BN, 1945 (Fair) 725*
Sup. C, cult., 1951 (Fair) 525*
3688, 1982 (Excellent) 23,000*

WHITE TRACTOR

4-150, 1977 (Fair) 9300*

JOHN DEERE TRACTORS

A, 1943 (Rough) 250*
A, 1952 (Fair) 610
B, 1944 (fair) 375*
B, 1941 (Rough) 280*
B, 1946 (Fair) 350*
B, 1945 (Rough) 225
B, 1944 (Rough) 240
B, 1945 (Rough) 200
R, 1950 (Fair) 1350
60, 1955 (Good) 1150*
60, 1956 (Fair) 500
60, 1956 (Fair) 675
70, 1957 (Rough) 550*
430, ldr., 1959 (Fair) 2000
720, 1958 (Good) 2050*
1010, 1961 (Fair) 1850*
1020, (Fair) 4200
3010, 1965 (Fair) 2425
3020 diesel, 1968 (Fair) 3600*
3020 diesel, 1968 (Good) 3625
4010, 1963 (Fair) 2675
4010, 1962 (Fair) 3100*
4010, 1963 (Rough) 2450*
4010, 1961 (Fair) 3550
4020 diesel, 1967 (Fair) 4200*
4020 diesel, 1966 (Fair) 3850*
4020 diesel, 1966 (Fair) 5200*
4020, 1965 (Fair) 3300*
4020 diesel, 1965 (Fair) 5650
4020, 1967 (Fair) 3600
4020, 1965 (Fair) 5000*
4020, 1970 (Good) 6200
4020, 1965 (Fair) 4650
4320, 1972 (Fair) 6000*
4320 diesel, 1971 (Good) 5500*
4320 diesel, 1971 (Good) 7100*
4320 diesel, 1972 (Good) 7400*
4430 diesel, 1975 (Good) 10,500*
4430 diesel, 1976 (Fair) 10,250

OLIVER TRACTORS

88, 1954 (Rough) 875
88 diesel, 1952 (Fair) 760
88 diesel, 1953 (Fair) 610
550, 1961 (Good) 3600
880 diesel, 1958 (Rough) 800
1235, (Fair) 3800
1600, 1961 (Good) 2800*
1855 diesel, 1972 (Fair) 4100*
1855 diesel, 1972 (Rough) 4250*
1855 diesel, 1973 (Good) 5300*
1955, 1973 (Good) 5800*
55 diesel, 1952 (Rough) 1050*
55, 1954 (Fair) 1500

ALLIS-CHALMERS TRACTORS

B, 1941 (Rough) 350
B, 1944 (Rough) 475
CA, 1950 (Fair) 410
WC, 1937 (Rough) 110
WC, 1936 (Rough) 125*
WC, 1937 (Rough) 250*
WD, 1944 (Fair) 430
WD, 1944 (Rough) 320

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WD, 1947 (Rough) 500
WD-45, 1952 (Fair) 925*
D-15, 1965 (Fair) 1825*
D-19, 1967 (Fair) 1700*
D-21, 1967 (Fair) 3200*
D-21, 1967 (Fair) 3800*
190 XT, diesel, 1970 (Fair) 3250
190 XT, diesel, 1969 (Fair) 3550
190 XT, diesel, 1968 (Rough) 3300*
190 XT, 1969 (Fair) 3550
200 diesel, 1974 (Good) 6500*
7040 diesel, 1976 (Good) 7300*
7050 diesel, 1974 (Good) 7700

MINNEAPOLIS-MOLINE TRACTORS

Jet Star, 1962 (Fair) 1300*
M-670, 1965 (Fair) 1950*
G-705 diesel, 1965 (Rough) 1600*
G-900 diesel, 1967 (Good) 3500
R, ... 125

MASSEY-HARRIS TRACTORS

33, 1947 (Rough) 260
101, ... 185
101, ... 190

CASE TRACTORS

320, ... 2400
430 diesel, 1963 (Rough) 1000*
500, 1956 (Rough) 950*
530, 1966 (Rough) 1275
530, Idr., 1969 (Fair) 2475
530, 1965 (Fair) 2400*
600 diesel, 1964 (Fair) 1000*
930 diesel, 1967 (Fair) 3000*
970, 1971 (Fair) 6050*
970, 1972 (Fair) 5000*
1030 diesel, 1967 (Rough) 3000*
1070, 1972 (Fair) 7000*
1070, 1971 (Rough) 6600*
1370, 1976 (Good) 9600*
1370 diesel, 1977 (Fair) 8300*
SC, ... 125

FERGUSON & MASSEY-FERGUSON TRACTORS

20, 1945 (Fair) 750*
20, ... 600
30, 1953 (Fair) 1000*
35, ... 3750
65, 1960 (Fair) 1600*
65, 1962 (Rough) 1750
135, 1968 (Rough) 3225
150, 1969 (Good) 2950
165 diesel, 1968 (Fair) 3000*
165 diesel, 1970 (Fair) 3400
165 diesel, 1970 (Fair) 3300*
165, 1968 (Rough) 2900*
165, 1972 (Fair) 3525
165, 1970 (Fair) 3000*
165, 1971 (Good) 3175
180, 1969 (Fair) 4200
265, 1961 (Good) 8900
1130 diesel, 1967 (Rough) 3525
1155, 1970 (Rough) 3800*
2805, 1979 (Good) 8200*

FORD TRACTORS

8N, 1947 (Rough) 875
9N, 1943 (Rough) 750
9N, 1940 (Fair) 1075*
9N, 1940 (Fair) 580
9N, 1942 (Fair) 1175
9N, 1941 (Fair) 850
9N, 1950 (Fair) 1435
601, 1957 (Fair) 1720*
801, 1957 (Good) 1450
801, 1959 (Fair) 1150
861, 1958 (Rough) 2325
4000, 1972 (Good) 3600*
4000, 1964 (Rough) 1400*
4000 diesel, 1969 (Rough) 2900*
5000, 1967 (Fair) 3200
5000, 1975 (Fair) 5200*
6000 diesel, 1964 (Rough) 1000*
9600 diesel, ... 8000
6600, ... 10,900
Jub., 1953 (Fair) 1200

COCKSHUTT TRACTORS

45, 1959 (Fair) 1900
1255, (Good) 3100*

DAVID BROWN TRACTORS

990 diesel, (Fair) 975

NOTES:
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FAIR: Engine possibly in need of a minor overhaul. Rubber—60% tread remaining, some cracking evident in sidewalls. Paint—only fair, weathered and some rust apparent. General appearance: worn, some dents, minor parts (gage covers, etc.) missing or broken.

ROUGH: Engine obviously in need of a major overhaul. Rubber—smooth. Paint—scarred, weathered, rusty. General appearance: dents, ruptures, broken parts, loose wires, components (such as lights) broken, missing or inoperative.

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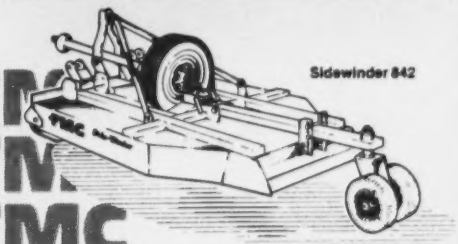

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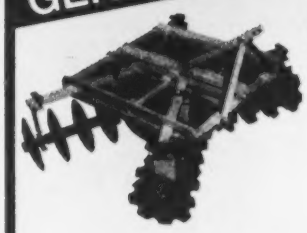

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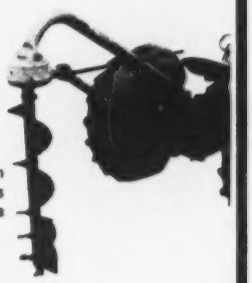

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The business magazine of the farm & industrial equipment industry

December 1983 • Vol. 98 • No. 14

TOUCHING THE FUTURE: PART 1, 1984 AND BEYOND

I&T went to several sources, including some you don't hear from very often, or often enough—a director of service, association managers, a tomorrow-oriented dealer—and asked for some insights about what's coming. Also: some manufacturers' and politicians' insights.

8: **'Free but Fair Trade.'** Chairmen of the Senate and House Ag committees favor the market, not government, as farm income source.

10: **They Never Stop Planning at Koenig Equipment.** The future? This Ohio dealership will be ready—or is already there.

14: **Will Dealer Associations Change?** They'll have to, says Dave Lucy, who manages one. How about that Industry Relations Fund?

16: **Shortliners Ponder Marketplace Trends.** Will farmers buy from catalogs? Will majors try to block shortline competitors?

18: **Advice, Encouragement, from a Departing Pro.** Harold Halter, bowing out as FEMA manager, likes members' future, with some warnings.

20: **What Will It Be Like 'Back in the Shop'?** Deere's general service manager sees an electronic future, more training, need for profit.

22: **Executive Outlook.** A sampling of statements on next year by industry officials, all members of the FIEI board of directors.

23: **Searching Out 'Excellence.'** The FIEI calls excellence "the magic of the future" and takes that theme for its 90th annual convention.

26: **How Clark Is Helping Dealers Use Computers.** With high-tech hardware, Clark Equipment Co. has built a computer communications network that gives dealers a wide choice of in-house computer systems.

30: **Shortliners See Brighter Days.** Optimism tinged with caution peeps out at the annual FEMA convention, where new officers are installed.

32: **Meyer Heads Wholesalers.** FEWA gets a new president at its convention, where sessions continue the focus on intense internal management.

34: **Finding the Right Mechanic.** A new test may relieve some of the problems in hiring competent employees for the service shop.

38: **Try a Little Strategic Pricing.** Buying right and selling smart gives this dealership a parts department sales booster.

42: **AIMRA Elects Clayton Roberts.** The manufacturers' reps meet to install officers and consider trends and computers.

On the cover: The scene is Walt Disney's EPCOT, which is a focus on tomorrow. It seemed to set the theme for this issue.

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I&T Update

October: Big Tractors Take a Jump

The October flash report of the Farm & Industrial Equipment Institute brought some good tidings: Big tractor sales were up strongly from October, 1982. Volume for the year on all tractor sizes was thus down only 3 per cent. Some observers, however, were suggesting that the percentages were more attractive than the margins, since inventory is still considered an industry problem. Meanwhile, unit sales volume in all other product groups of the report declined.

Unit Retail Sales

	October			January-October		
	1983	1982	Pct. Change	1983	1982	Pct. Change
Farm Wheel Tractors:						
2-wheel drive:						
Under 40 hp	3,557	3,304	+ 7.7	40,643	37,922	+ 7.2
40-99 hp	3,616	3,991	- 9.4	32,810	35,969	- 8.8
100-139 hp	2,139	1,668	+ 28.2	12,815	16,164	- 20.7
140 hp and over	2,198	945	+132.6	11,134	8,799	+26.5
Total 2-wheel drive	**11,510**	**9,908**	**+ 16.2**	**97,402**	**98,854**	**- 1.5**
4-wheel drive:						
under 200 hp	316	250	+ 26.4	1,679	2,593	-35.2
200 hp and over	444	372	+ 19.4	2,470	3,101	-20.3
Total 4-wheel drive	**760**	**622**	**+ 22.2**	**4,149**	**5,694**	**-27.1**
Total All Tractors	**12,270**	**10,530**	**+ 16.5**	**101,551**	**104,548**	**- 2.9**
S-P Combines	2,025	3,011	- 32.7	10,202	12,220	-16.5
Balers (200-lb. bales)	330	531	- 37.9	8,642	8,406	+ 2.8
Forage Harvesters (Shear-bar type)	655	864	- 24.2	3,744	4,582	-18.3
Mower Conditioners	574	838	- 13.5	13,528	13,146	+ 2.9

Nine-Month Imports Show 5 Pct. Rise

Imports of farm equipment were up slightly in the first nine months of 1983 compared with the same 1982 period—a five per cent rise to $978 million. The mild net increase masked some sharp rises and declines from individual countries, however.

Imports from America's leading trade partner, Canada, were off 21 per cent to $315 million. But there were big jumps, particularly in agricultural tractors, by West European nations. For instance, West Germany sent $97 million in tractors in the 40-80 horsepower range, a tripling of dollar volume over 1982. Britain sent $51 million in that horsepower range, more than double last year's volume.

Total imports from the United Kingdom were $123 million for the first nine months, up 70 per cent. From West Germany, the total was $190 million, up 56 per cent.

Italian and Japanese imports remained unchanged in dollar value at $73 million and $143 million respectively. Japan increased its import volume on under-20-hp units and in the 40-80 horsepower group but cut back in other major areas.

The biggest import categories were tractors in the 40-80-hp bracket—$205 million, up 127 per cent—and tractor parts—$143 million, off 5 per cent.

Hesston Aims at Finishing 1983 In the Black

Hesston Corp.'s third quarter (ended Sept. 30) produced earnings of $2.67 million on sales of $54 million. For the nine months, earnings were $4.69 million on sales of $155.5 million.

In 1982, Hesston lost $2.65 million on sales of $45 million in the third quarter and $2.25 million on sales of $166.2 million.

Howard Brenneman, president, told the Hesston board of directors that the farm equipment market is "more competitive and difficult than anticipated due to the amount and variety of terms, discounts and rebates being offered." But he added that a program to enlist more Hesston dealers as suppliers of the complete line, including tractors, had made progress.

The company anticipates at least a break-even result from 1983 operations despite the last quarter being a traditionally low period for shipments to dealers.

Front-Wheel Assist Takes 26% in Canada

According to the Canadian Farm & Industrial Equipment Institute, front-wheel assist was a part of an estimated 26 per cent of all two-wheel drive tractors sold in Canada this year.

At the group's annual meeting Nov. 10 in Toronto, the outlook report issued by its Marketing Committee estimated that 1983 will see total tractor sales of 18,411 units. Of 16,120 two-wheel-drive types sold, 4,207 were reported as having front-wheel assist, or 26 per cent.

Of the 3,041 units sold in the under-40-hp bracket, 59 per cent had front-wheel assist; 1,870 of the 7,192 units in the 40-99-hp bracket (26 per cent) had front-wheel assist; 9 per cent—540 units—of the 5,889 tractors in the over-100-hp group had front-wheel assist.

Other aspects of the Canadian outlook report will appear in the next issue of I&T. Expectations are for a 10 per cent improvement overall in 1984.

Wholesaler Forms Equipment Credit Company

Lindsay Bros., Inc., Milwaukee, Wis., farm equipment wholesaler, has formed Lindsay Financial Corp. to provide financial services to farm equipment buyers, according to Stuart C. Lindsay, chairman and chief executive officer. It is believed to be the first entry by a farm equipment wholesaler into retail and wholesale financing.

Briefly....

Hiniker Co., Mankato, Minn., maker of minimum tillage planters and other equipment, has been sold by Kenneth Hiniker to the Coster Co., Chicago. Hiniker will remain as president.

Richard McElheny, former president of Farmhand, Inc., has been confirmed by the U.S. Senate as assistant secretary of commerce for trade development. He had previously been director general of the department's U.S. and Foreign Commercial Services.

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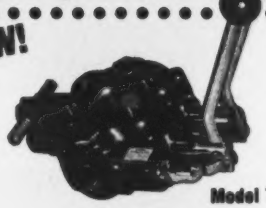

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- **Proportional Flow Dividers**
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IS PARTS SERVICE TOO GOOD?

By Scott R. Nesbitt

A study of parts distribution among FIEI manufacturers indicates that parts distribution is costing too much. Does the problem lie in attitudes and policies, or is high cost an unchangeable fact of life for the ag-industrial industry?

■COMPANIES that build farm and industrial equipment spend too much money supplying service parts to their customers.

That's the conclusion Herbert W. Davis has reached after three years of studying parts costs for the FIEI.

"The numbers don't indicate that we're getting what we're paying for," Davis told 75 ag-industrial ex-

(More...)

1982 Parts Distribution Performance

Averages for 31 Survey Respondents, by FIEI Division

The Cost of Parts Returns

	Sales In $1000 Performance In Percentage FED	AED	ICED
Total Gross Sales	$439,000	$264,000	$49,000
Total Gross Parts Sales	$108,000	$ 41,000	$30,000
Less Parts Returns			
Miscellaneous	3.09%	0.89%	0.98%
Annual	3.69	1.84	1.02
Closeout/special	3.56	0.83	0.59
Subtotal Returns	9.98%	3.56%	3.63%
Less Warranty Claims	3.20%	3.68%	1.14%
Discounts & Allowances	2.36	1.43	4.25
Net Parts Ship[illegible]	84.09%	91.33%	92.01%

Total Operating Costs

	Percentage of Sales FED	AED	ICED
Distribution Costs:			
Inbound and internal transportation costs	1.42	1.05	0.87
Outbound transportation costs	1.37	1.56	0.22
Identification and unit packaging	1.13	0.42	1.02
Warehouse operation	8.31	5.87	4.33
Total Distribution Costs	12.15	8.91	6.44
Administration Costs:			
Materials and procurement	1.19	2.12	1.28
Customer service	2.04	0.50	5.48
Inventory carrying costs	8.54	5.48	5.71
System and data costs	1.43	1.08	1.47
Other administrative costs	1.86	0.48	2.22
Total Administration Costs	14.58	12.17	13.88
Marketing Costs:			
Parts pricing and catalogs	0.40	0.17	0.54
Selling and commissions	0.78	0.92	0.67
Merchandising (promotions)	0.50	0.93	0.25
Total Marketing Costs	1.68	2.02	1.46
Total Operating Percentages	28.88	23.10	29.52

Selling Parts
(continued)

ecutives last month at the FIEI Parts Committee three-day seminar on "Parts, Money, Products."

"Perhaps the area for greatest improvement is through a change of the underlying policies, the philosophy of operation in this industry," Davis said in presenting the results of the committee's third annual survey of service parts distribution costs.

"As things stand," the analyst said, "the consumer can drive the manufacturer to maintain a 1951 tractor. I know. I own three of them myself."

Customer service, with a fill rate of 93 to 96 per cent on parts, is very high compared to other industries, Davis said.

"But the costs are also very high, averaging about 25 per cent of gross sales revenues of parts," he said. "In our experience, no other industry is within striking distance of that level of costs."

The survey in 1982 drew responses from 31 FIEI member firms, including 18 from the farm equipment division (mobile field units), six from the agri-equipment division (fixed farmstead items), and seven from the industrial-construction division. In 1981 there were 26 responses, and 13 in 1980.

Three big problems

A specialist in analyzing market data and physical distribution for several industries, Davis spotlighted three major reasons for the high costs.

Inventory turnover is slow, creating costs to warehouse, catalog and organize large numbers of slow-moving parts.

Carrying costs are high, because slow-movers use up costly warehouse space and tie up high-interest money.

Customer service is exceptional, spurred by a desire to get even the oldest parts out to customers as quickly as possible.

Jim Ebbinghaus, vice-president of FIEI, noted that the survey figures confirm the general rule that 20 per cent of part numbers produce 80 per cent of the sales, which means 80 per cent of part numbers are slow movers.

"One of the messages," Ebbinghaus said, "is that the farm equipment industry does more to meet the needs of customers than other industries. The theory is that good service on old equipment will lead to customer loyalty and purchases of new equipment of a particular brand.

"That way of doing business may be costly and some real savings might come from cutting back. But who wants to be the first to test that theory?" he asked.

Ebbinghaus noted that a USDA survey of a few years ago found that half the tractors produced 25 years ago were still in use on farms, creating a demand for older parts that may be slow movers.

Davis acknowledged the long life span of farm and industrial equipment, and concedes that "we may be locked in a high fixed-cost system.

"But don't be satisfied that costs are high because the level of service is high," he cautioned the assembled parts managers. "High cost doesn't mean good service. High cost comes

(More...)

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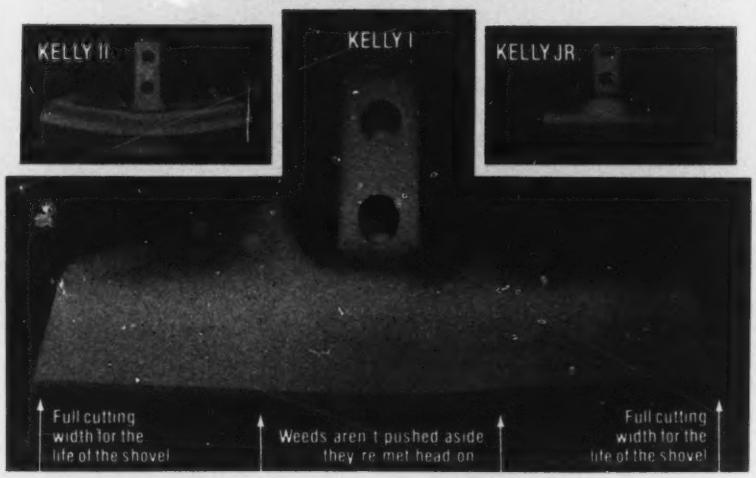
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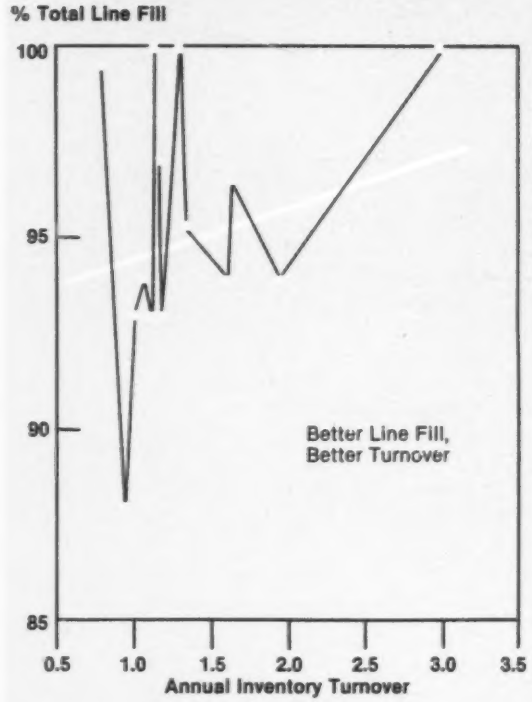
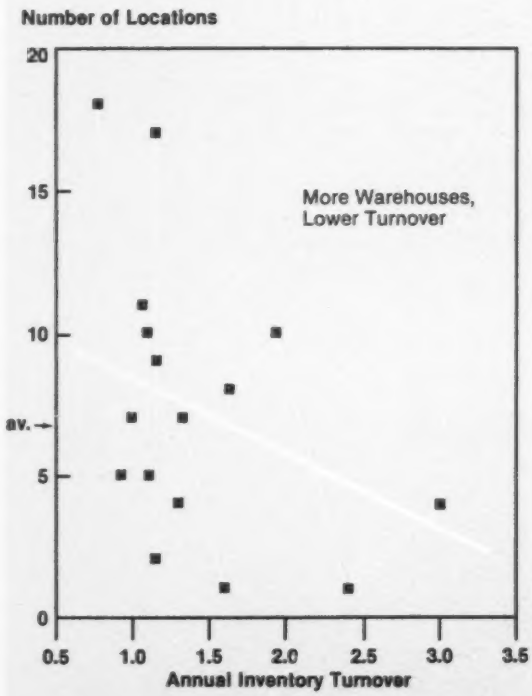
Inventory Turnover Trends

(1982 data, 18 member firms, FIEI Farm Equipment division)





All charts and tabular data courtesy FIEI Parts Committee, compiled by Herbert W. Davis & Co., 111 Charlotte Pl., Englewood Cliffs, NJ 07632.

Selling Parts
(continued)

from bad control."

Costly parts returns

The survey found that, in the farm equipment division, companies bought about 10 cents in returned parts for every dollar of new parts sold.

Davis said his research showed only two industries approach that 10 per cent return level. Cosmetics have a 10 per cent return, but he noted they deal in a non-serviced, high-profit consumer item. Pharmaceuticals' return rate runs about 5 per cent, largely because of dating laws on drugs.

The message, said Terry Sexton, Steiger Tractor parts manager and parts committee chairman, is "dealers have to be taught that parts returns are not an insurance policy against poor parts management."

James F. Wimpress, Massey-Ferguson's North American parts manager, said the cost of returns is emphasized by a study that found 85 per cent of returned parts were scrapped within 5 years.

Several parts managers said a portion of the returns to manufacturers is generated by buy-back laws that exist in 25 states. L. James Nelson, FIEI government relations director, noted in a presentation on buy-back laws that some states require repurchase at 100 per cent of current net price, with the average at 85 per cent of net price.

The survey did not specifically factor out the effect of buy-back laws on parts returns, but Davis said FIEI manufacturers have "rather liberal" return policies that add substantially to total parts distribution costs.

The cost of speed

Davis said the survey indicates that extra costs are associated with maintaining multiple warehouse facilities, which are supposed to put the parts stock physically closer to the customer.

Inventory turnover is poor compared to other industries, Davis said. Broken down by FIEI divisions, annual turnover rates were 1.38 for the FED; 2.23 for the AED, and 2.96 for the ICED.

"There's evidence that the smallest companies are the most efficient," Davis said. "The fewer stocking locations, the greater the inventory turnover. That's not unusual.

"Inventories increase with the number of stocking points. Line fill doesn't correlate with inventory level." In fact, he said, "inventory turn is better with better service to the customer.

"Somewhere in your system is a balance point between speed and cost of service. By closing warehouses, you may reduce costs and increase the fill rate on orders, but you may take more time to do it," Davis concluded.

Hugh D. Cotcamp, parts operations manager of Ford Tractor Operations, said the survey raised the issue of whether order fill was being analyzed as the dealer sees it, or as the manufacturer sees it. "Perhaps we need a more current measure of what's going on in the industry," he said. "Our survey has a key untouched factor, the time to turn around back-ordered parts, which would tell a lot about how well we're doing our job."

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Asterisk beside tractor price indicates highest bid offered on tractors which were not sold.

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Archbold, Ohio
October 11, 1983

MASSEY-HARRIS TRACTORS

44, 1949 (Rough) 325
44 diesel, 1949 (Fair) 550*
333, 1954 (Rough) 520*

INTERNATIONAL HARVESTER TRACTORS

C, 1947 (Rough) 450*
C, 1948 (Rough) 650*
BN, 1948 (Fair) 525*
BN, 1947 (Fair) 400*
A, 1950 (Rough) 550*
A, 1948 (Fair) 720
H, 1950 (Fair) 575*
H, 1942 (Fair) 600*
Sup. C, 1951 (Fair) 625*
Sup. H, 1952 (Fair) 625*
Sup. H, 1951 (Fair) 660
Sup. M, 1952 (Rough) 775
Sup. M, 1952 (Fair) 775
300, 1955 (Fair) 750*
350 diesel, 1958 (Rough) 740
M, 1946 (Fair) 800*
M, 1947 (Rough) 620*
M, ... 400
M, 1950 (Rough) 600*
460, 1960 (Fair) 1400
504, 1966 (Fair) 2100*
504, 1966 (Fair) 1450*
504, 1965 (Rough) 1450
560, 1961 (Fair) 1300
560 diesel, 1960 (Fair) 1850*
574, 1973 (Fair) 3250*
554, Idr., (Fair) 4100*
656 diesel, 1970 (Fair) 3650
656, 1970 (Good) 4500*
674 diesel, Idr., 1970 (Good) 4600
706, 1964 (Rough) 2800*
706, 1963 (Rough) 2200*
706 diesel, 1966 (Good) 3000*
756 diesel, 1968 (Fair) 4300
806, 1964 (Fair) 4250*
806, 1964 (Fair) 4200
806, 1967 (Good) 2800*
856 diesel, 1970 (Fair) 5100*
856 diesel, 1967 (Fair) 5800*
856 diesel, 1969 (Good) 4100
886, 1980 (Excellent) 12,000
966, 1975 (Good) 8300*
1026, 1970 (Fair) 5800*
1066, 1975 (Fair) 5950
1066, 1975 (Fair) 6200*
1066, 1976 (Good) 7500
1066 diesel, 1976 (Good) 8500*
1066 diesel, 1976 (Good) 9050*
1086, ... 15,000
1206 diesel, 1966 (Good) 4700*
1206 diesel, 1965 (Fair) 6250*
1466 diesel, 1974 (Good) 8100*
1468 diesel, 1975 (Fair) 5100*
1486, 1979 (Excellent) 18,000*
1568, 1974 (Fair) 6600*

MINNEAPOLIS-MOLINE TRACTORS

Jet Star, (Fair) 1400*
M-670 G, (Fair) 1900*
G-1000, (Good) 2950
Z, ... 265
Z, ... 140
G, diesel, 1949 (Rough) 475

ALLIS CHALMERS TRACTORS

B, ... 310
C, ... 400*
CA, 1950 (Fair) 500*
WC, 1939 (Rough) 200*
WD, 1944 (Fair) 435*
WD-45, 1950 (Rough) 425*
WD-45, ... 680
D-14, 1964 (Rough) 1100*
D-14, 1966 (Fair) 925
D-15, 1965 (Fair) 1500*
D-17, 1964 (Good) 1750
D-21, 1967 (Fair) 4000*
185 diesel, (Fair) 5200
190XT diesel, 1970 (Fair) 3650
7030, 1974 (Good) 7300*
7030 diesel, 1975 (Good) 7000*

JOHN DEERE TRACTORS

A, 1943 (Rough) 475*
B, 1946 (Fair) 575
B, 1945 (Fair) 425
70, 1954 (Fair) 600
70, (Good) 570*
70, 1955 (Fair) 925*
420, 1958 (Fair) 1325
720 diesel, 1957 (Fair) 1950
2010 diesel, 1962 (Fair) 2175
2010, 1963 (Good) 2700*
2020 diesel, (Rough) 3300*
2630, 1975 (Excellent) 7000
3020 diesel, 1968 (Good) 4500*
3020 diesel, 1969 (Good) 5400
4010, 1963 (Fair) 3350
4010, 1964 (Good) 3000*
4020 diesel, 1965 (Fair) 5350
4020, 1967 (Fair) 3275
4020 diesel, 1965 (Good) 6450
4020 diesel, 1966 (Fair) 5750*
4240, (New) 26,000*
4320, 1973 (Good) 7850
4430, 1975 (Fair) 10,250*
5020, 1968 (Fair) 4400*
7520 diesel, 1973 (Fair) 13,000*

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990, (Rough) 750*

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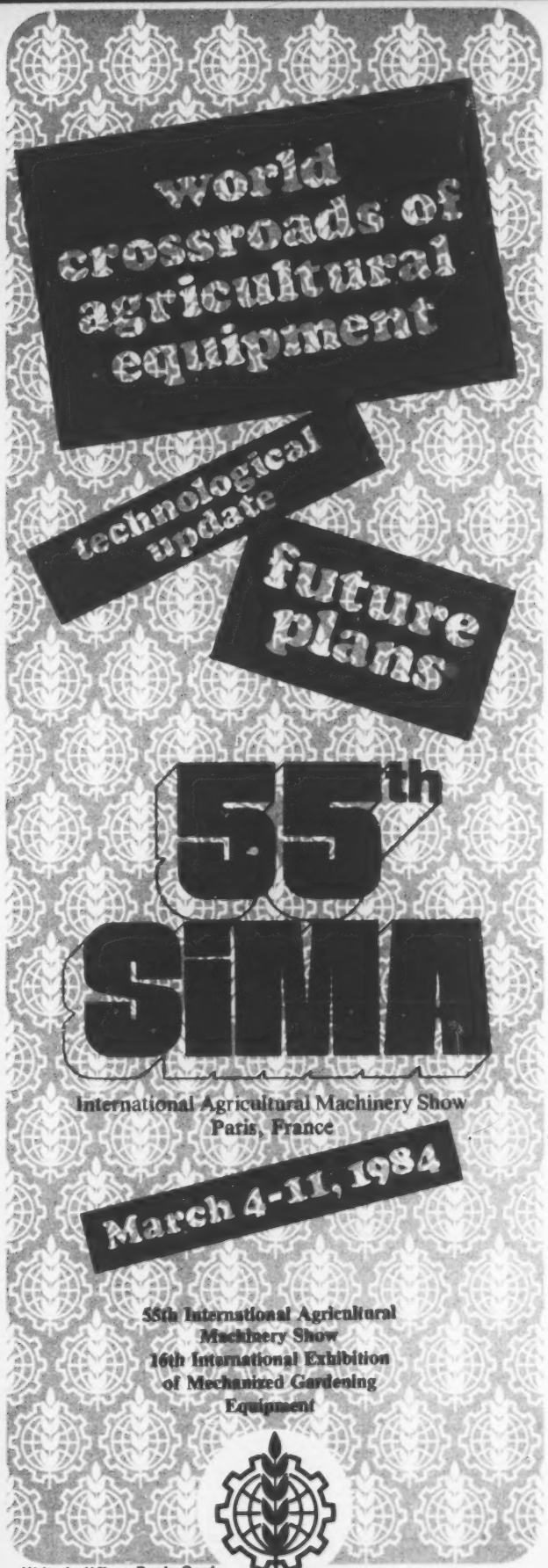

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Auctions *(continued)*

990, (Rough) 1900*
1200, (Rough) 2600*
1200, (Rough) 2500*

FORD TRACTORS
8N, 1946 (Fair) 1380*
8N, ... 1000
8N, 1952 (Fair) 1525
8N, 1950 (Rough) 960
9N, 1940 (Rough) 700*
9N, 1941 (Rough) 925
NAA, 1954 (Rough) 1450
3000 diesel, 1972 (Fair) 2600*
4000 diesel, 1970 (Rough) 2800*
4000, hoe/ldr., ... 3150
4000, 1962 (Fair) 1200*
5000 diesel, 1973 (Good) 5600
5000, 1971 (Fair) 4900*
5000, 1970 (Fair) 2800*
6000, 1961 (Rough) 1250*
640, 1955 (Fair) 2100
TW-30, 1982 (Excellent) 26,000*
Dexta diesel, (Rough) 1925
Fordson Maj. diesel, (Rough) 600*
Jub. ldr., 1953 (Rough) 2100*
850, 1955 (Good) 2500*
960, 1957 (Rough) 1200

FERGUSON & MASSEY FERGUSON
TD-30, 1950 (Rough) 950*
TD-30, 1950 (Fair) 1300
50, 1965 (Fair) 1900*
65 diesel, 1964 (Good) 2500
65, 1960 (Fair) 1800
165 diesel, 1970 (Fair) 2950*
165, 1969 (Rough) 3100*
1155, (Fair) 6500*

COCKSHUTT TRACTORS
E-4, 1950 (Fair) 375*
1255, (Good) 3575
E-3, 1945 (Rough) 250*

OLIVER TRACTORS
88 diesel, 1949 (Fair) 975
880, 1959 (Rough) 950*
1955 diesel, 1974 (Good) 5200
1800, 1962 (Rough) 1200*
1855 diesel, ... 3500
55-diesel, ... 750*

WHITE TRACTORS
2-150, 1978 (Fair) 7000
4-150, 1976 (Rough) 10,250*
1855 diesel, 1973 (Fair) 4100*

CASE TRACTORS
500, 1957 (Rough) 900*
600, 1963 (Rough) 700*
530, ... 2500
580 hoe/ldr., ... 5150
630, 1965 (Rough) 825
770, 1972 (Rough) 2450
830 diesel, 1965 (Fair) 3400*
870 diesel, 1972 (Fair) 4000*
870 diesel, 1973 (Fair) 5900
930, 1965 (Fair) 1400*
930 diesel, 1966 (Fair) 2700*
930 diesel, 1967 (Fair) 2750*
970, 1973 (Fair) 5550*
970, 1973 (Fair) 5400*
1030 diesel, 1965 (Rough) 2400*
1070, 1972 (Fair) 7000*
1070, 1975 (Rough) 6200
1370, 1976 (Fair) 8100*
2470 diesel, 1972 (Fair) 9000*
VAC, 1947 (Rough) 210
VAC, 1948 (Rough) 260*

ENLOW AUCTION CO.
Tulsa, Okla.
(October 8, 1983)

ALLIS-CHALMERS TRACTORS
D-14, 1958 (Good) 2050
D-15, 1962 (Good) 2700
190 XT, 1965 (Fair) 2250

CASE TRACTORS
D, 1953 (Fair) 260
430, 1964 (Good) 1800
530 diesel, 1966 (Good) 2425
1030 diesel, 1968 (Fair) 2200*

JOHN DEERE TRACTORS
B, 1945 (Fair) 180
420, 1957 (Good) 1500*
710 diesel, 1969 (Good) 2600
2020 diesel, 1970 (Good) 4150
3020 diesel, 1968 (Good) 2100*
4010 LP, 1962 (Fair) 3100*
530, 1959 (Fair) 1650*

FERGUSON TRACTORS
20, 1949 (Good) 1200
30, 1952 (Fair) 1050*

FORD TRACTORS
9N, 1942 (Fair) 950*
9N, 1944 (Good) 1350
9N, 1944 (Fair) 800*
9N, ldr., 1945 (Good) 1200
9N, 1947 (Good) 1250
8N, 1950 (Fair) 1200*
8N, 1952 (Good) 1425
NAA, 1953 (Good) 2350
601, 1957 (Fair) 1700*
641, 1958 (Good) 2100
850, 1954 (Good) 2000*
850, 1955 (Rough) 1475*
850, 1956 (Fair) 1750*
850, 1956 (Good) 1900*
801, 1958 (Fair) 1800*
861 diesel, 1961 (Good) 2850*
1300, mo., 1981 (Excellent) 3600*
1600 diesel, 1981 (Excellent) 4200
2000, 1962 (Fair) 1725
2000, backhoe-ldr., 1962 (Good) 3500*
2000, 1966 (Good) 2825
2000, 1968 (Good) 3105*
3000 diesel, 1967 (Good) 3959*
3500, 1966 (Fair) 2350
3500, 1968 (Good) 3800
4000, ldr., 1962 (Good) 3050
3600 diesel, 1981 (Good) 6250
3600 diesel, 1981 (Good) 6750
3600 diesel, 1982 (Excellent) 7750
4400, ldr., 1965 (Fair) 3000

INTERNATIONAL HARVESTER TRACTORS
Cub, mo., 1949 (Good) 1350*
Cub, mo., 1952 (Fair) 1250
Cub Loboy, mo., 1958 (Good) 1500*
Super A, 1950 (Good) 1050*
H, 1946 (Fair) 400*
M, equip., 1949 (Good) 1000
M, 1950 (Good) 575*
300, plow, 1955 (Good) 1450
350, 1957 (Fair) 850*
W-450 diesel, 1956 (Good) 900*
444 diesel, 1968 (Good) 2100
3444 diesel, backhoe ldr., 1967 (Fair) 4150*
544 diesel, 1972 (Fair) 3050*
574 diesel, ldr., 1975 (Good) 5500
674 diesel, 1974 (Good) 3550*
806, 1966 (Fair) 3250
826, 1970 (Good) 6500*

KUBOTA TRACTOR
B-7100, (Good) 2700

MASSEY-FERGUSON TRACTORS
35, 4-cyl. diesel, 1958 (Fair) 1600
35, 1961 (Good) 2100
50, 1960 (Fair) 1800*
65, 1960 (Good) 2000*
65 LP, 1961 (Good) 1825
65, 1961 (Fair) 1690*
65 diesel, 1963 (Good) 2700
135, 1972 (Good) 3750
150 diesel, 1971 (Good) 4300